REMARKS

Upon entry of the Amendment, Claims 1-32 will be pending in the application.

Claim 1 is amended to recite "applying a DC magnetic field". Support can be found, for example, on page 12 at [59]. No new matter is added.

New Claims 3-32 are added. The new dependent claims are directed to subject matter disclosed in the specification, for example, starting at paragraph [33].

Claims 3-7 are supported, for example, at [33]. Claim 8 is supported, for example, at [36]. Claims 9-10 are supported, for example, at [37]. Claim 11 is supported, for example, at [39]. Claim 12 is supported, for example, at [41]. Claims 13-15 are supported, for example, at [42]. Claims 16-17 are supported, for example, at [50]. Claim 18 is supported, for example, at [51]. Claim 19 is supported, for example, at Table 1. Claim 20 is supported, for example, at Tables 2 and 3. No new matter is added.

New independent method Claim 21 and dependent Claims 22-32 are added. New Claims 22-32 depend from Claim 21 either directly or indirectly and their patentability should accompany the patentability of independent Claim 21. Claim 21 is supported, for example, at [58]-[59] and in original Claim 1. Claim 22 is supported, for example, at [58]. Claim 23 is supported, for example, in original Claim 2. Claims 24-32 are directed to the same subject matter as new Claims 3, 5, 8, 10-13, 16 and 18 described above, but dependent on new Claims 22, 24 or 28. No new matter is added.

Entry of the amendment is respectfully requested along with reconsideration and review of the claims on the merits.

Paragraphs 2-10 - Claims 1-2 - The Rejection Under 35 U.S.C. §103(a)

Claims 1-2 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ishida et al. (WO 98/03972) as evidenced by Oda et al. (US 5,435,903).

The Examiner utilizes US 6,347,016 to Ishida et al. as an English Translation of the Ishida WO '972 reference. All citations to Ishida are to the U.S. reference.

A. The Examiner's Position

The Examiner describes that Claims 1 and 2 require a transfer method for applying a magnetic field for transfer, comprising bringing a master carrier for magnetic transfer into close contact with a slave medium and applying a magnetic field whereby information is transferred, said master carrier comprising a magnetic layer deposited to correspond to the information to be transferred, said magnetic layer being formed on the surface of a substrate, and said slave medium being a magnetic recording medium to receive the transferred information, wherein the relative permeability of the magnetic layer of the master is within the range of 10-1000 (claim 1), more specifically 50-500 (claim 2).

The Examiner asserts that relative permeability, while a known property in the art of magnetic recording, is frequency dependant. In other words, the measured value of the relative permeability of a magnetic material assertedly depends on the frequency at which it is measured, as assertedly evidenced by Oda et al. The Examiner takes the position that if a magnetic material is capable of exhibiting a relative permeability within the claimed range at "a" frequency, then it reads on the claim limitations.

The Examiner then cites Ishida et al as teaching a magnetic master medium comprising a substrate having an embossed pattern corresponding to an information signal, wherein magnetic material is deposited on the surface of at least the protruding portion of the magnetic material

where the Examiner interprets the magnetic layer formed on the protruding portions of the substrate as equivalent to Applicants' claimed magnetic layer.

The Examiner cites to Oda as teaching that the relative permeability of FeCo alloys depends on the frequency at which they are measured, with relative permeability decreasing as frequency increases (see Fig. 2 and column 7, lines 1-35), and the Examiner points to Fig. 2 as supporting his position that FeCo alloys can exhibit the relative permeability required by Claims 1 and 2 when measured at ~10 megahertz.

Applicants respond as follows.

Applicants amend Claim 1 to recite "applying a DC magnetic field". Applicants submit that Ishida et al. as evidenced by Oda et al. does not render obvious each and every element of Applicants' claimed invention, for example, at least the requirements of applying a DC magnetic field and that relative permeability of the magnetic layer of the master carrier is in the range of 10-1000.

In the invention of the present application, a "DC magnetic field" is used as transfer magnetic field. Applicants submit that it is not possible to define the frequency of a DC magnetic field. It does not appear that a definition of frequency for a DC current has any meaning or perhaps can be stated to correspond to zero. The value of relative magnetic permeability as described in the present invention is a value when DC magnetic field is applied, and it is not related to frequency.

According to Fig. 2 of Oda et al., the lower the frequency is, the higher value the relative magnetic permeability has. However, in Fig. 2, even the lowest value of relative magnetic permeability is 5×10^3, when the frequency is 1 kHz.

In contrast, according to the present invention, relative magnetic permeability is in a range of 10 to 1000. When the case where poor magnetic transfer to the surface of a slave medium was studied, Applicants found that poor transfer was caused when relative magnetic permeability of the magnetic layer of the master carrier was high (see specification, paragraphs [18]-[22]). This may be attributed to the fact that, when the magnetic field is removed after application of the magnetic field for transfer and the master carrier for magnetic transfer is partially magnetized by the magnetic field from the pattern of the slave medium because relative magnetic permeability is high, and this causes magnetization of the slave medium. To prevent this phenomenon, relative magnetic permeability of the magnetic layer of the master carrier must be 1000 or less. In case the relative permeability is 1000 or less, magnetization does not occur on the magnetic layer or magnetization occurs in the same direction as the magnetic field for transfer. When relative permeability is too low, the magnetic field for transfer is not absorbed in the master carrier. Because the same magnetic field is present at each portion on the slave medium at the time of transfer, it is not possible to achieve magnetic transfer according to the pattern of the master carrier. Therefore, relative permeability of the magnetic layer of the master carrier is preferably 10-1000, or more preferably 50-500.

Therefore, the present invention is not rendered obvious by Ishida et al. as evidenced by Oda et al.

New Claims 2-20 depend from Claim 1 either directly or indirectly and their patentability should accompany the patentability of independent Claim 1.

New independent method Claim 21 is added. New Claims 22-32 depend from Claim 21 either directly or indirectly and their patentability should accompany the patentability of independent Claim 21.

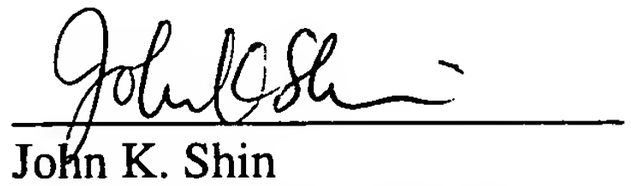
Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a), and earnestly request allowance of pending Claims 1-32.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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